ABSTRACT OF THE DISCLOSURE

A method and system for multi-level power management in an optical network is provided. They include three levels of power management. The first level of power management dynamically changes equipment settings in each module of equipment so that required module setpoint values in each module are achieved. The second level of power management determines module setpoint values for each module of equipment within each node in the optical link so that required node setpoint values are achieved. The third level of power management determines node setpoint values at each node in the optical link so that the optical link meets predetermined power specifications. If any of the three levels cannot achieve the required setpoint values, an error signal is generated by that level of power management and sent to the level of power management above it, thus initiating a higher level of power management. As a result, a dynamic and automatic adjustment to changing operating conditions and configurations in the network is provided, which allows to maintain relatively stable network powers. Each level of power management is implemented such that sections of the network can operate independent of each other, thus increasing the survivability of the network.